

**NILO-SAHRAN**

**Linguistic Analyses and Documentation**

*Edited by M. Lionel Bender, Franz Rottland and Norbert Cyffer*

ISSN 0932 - 1993

Volume

22

**Advances in Nilo-Saharan Linguistics**

Proceedings of the 8th Nilo-Saharan Linguistics Colloquium,  
University of Hamburg, August 22-25, 2001

Edited by

Doris L. Payne  
Mechthild Reh

**Bibliographic information published by the Deutsche Nationalbibliothek**  
Die Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at  
<http://dnb.d-nb.de>.

ISBN 978-3-89645-140-8

© 2007 The Editors  
RÜDIGER KÖPPE VERLAG  
P.O. Box 45 06 43  
D - 50881 Cologne

*www.koeppe.de*

All rights reserved.

Published with financial support from the *Abteilung Afrikanistik und Äthiopistik, Asien-Afrika-Institut*, University of Hamburg, Germany

Production: DIP-Digital-Print, Witten / Germany

Gedruckt auf säurefreiem und alterungsbeständigem Papier.  
Printed on acid free paper which falls within the guidelines of the APP to ensure permanence and durability

## **Further Evidence for a Niger-Saharan Macrophyllum**

Roger Blench

### **1. Introduction**

The concept that a Niger-Saharan macrophyllum exists may be said to be slowly gaining acceptance; at least no strong case has been advanced against it. Although the original idea goes back to Westermann's (1911) *Sudansprachen*, its modern form dates from Oeggerlen (1972). Apart from two previous papers by the present author in this conference series (Blench 1995, in press), Bender (1996a) and Boyd (1997) have also considered the issue although with different results from those proposed here. Mikkola (1998, 1999) reviews some of the more well-known Nilo-Saharan etymologies and considers the comparisons with Niger-Congo.

Bender (1996a) represents the culmination of many years work on the various branches of Nilo-Saharan and the classification it presents has been developed across numerous publications. A major competing proposal for the internal classification of Nilo-Saharan has long been in circulation and is now published (Ehret 2001). The differences between this and Bender's version have been exhaustively rehearsed in print and will not be repeated here (e.g. Bender 1996b and Blench 2000). Ehret does represent a significant source of new suggestions for roots, despite his often unusual approach to semantics. At the same time, a more comprehensive defence of the unity of Niger-Congo has been published (Williamson and Blench 2000). This paper presents further lexical evidence for Niger-Saharan in the light of these recent developments.

### **2. New proposals for Niger-Saharan roots**

Proposed Niger-Saharan roots are set out in the same fashion as previous papers. Tables of acronyms and presentation conventions are given at the end of the paper. Where a branch is not cited, it means either that I have been unable to find the lexical item in the sources available to me or the forms in that branch do not appear to be cognate. All citations are referenced either directly or through the acronyms preceding the paper. The entries are ordered by English gloss. The references below each gloss, typically to Westermann, Mukarovsky and Ehret, simply indicate that a root of similar shape is noted by them, not that I in any way concur with their analyses. I have generally been very

conservative with the semantics, and admitted only those shifts that are attested synchronically in present day languages.

### 1. #bulV(k) belly, stomach

Ph	Group	Language	Witness	Gloss	Source
NS	Shabo	Shabo	θabu	liver	Teferra (n.d.)
NS	Kuliak	Ik	bubú	stomach	Heine (1999)
NS	Koman	Anej	a-buun	belly	Bender (1983)
NS	ES	Burun	buri	belly	RCS
NS	ES	Bari	bur pl.	stomach	RCS
NS	ES	Daju (Shatt)	θileek	belly	Thelwall (1981)
NS	CS	Yulu	mbèekō	ventre	Boyeldieu (2000)
NS	Maban	Mimi	bok	belly	Edgar (1991)
NC	PWS		#-pu-	Bauch	W. 278
NC	Mande	Bambara	furu	estomac	Bailleul (1996)
NC	Atlantic	Kisi	pùléí	stomach	Childs (2000)
NC	Ijoid	Kolokuma	fúróú	belly	Williamson (p.c.)
NC	Ijoid	Mein	bírí	belly	Williamson (p.c.)
NC	Gur	Moore	puu-gà / -se	ventre	Manessy (1975)
NC	Adamawa	Mundang	θár	belly	Elders (2000:34)
NC	Ubangian	Nzakara	vülü	ventre	Moñino (1988)
NC	Kwa	Gonja	è-pún	stomach	Rytz (n.d.)
NC	WBC	Std Igbo	áfɔ	belly	Williamson (p.c.)
NC	WBC	Igala	éfù	belly	Armstrong (1965)
NC	EBC	Mbeimbe	è-βɔ:r	belly	BCCW
NC	Bantu	CB	#-pù	pit of stomach	Guthrie CS 1610

**Commentary:** One of the most striking and widespread Niger-Saharan roots. Westermann's PWS form is somewhat surprising since his own evidence suggests strongly the presence of a lateral in C<sub>2</sub> position and even paired high back vowels. Some NS forms suggest a -k- in C<sub>2</sub> position although this is not widespread enough to reconstruct to PNS with confidence. The reduplications in Shabo and Ik are treated as local developments. The variation between front and back vowels suggests either that there are two separate roots that closely resemble one another, or that the root has some phonological feature that causes fronting of V<sub>1</sub>. The two Ijoid words may therefore not be cognate with each other. Thus, as in Kolokuma, the one beginning p/f- had back vowels, the Mein form with initial θ- had front vowels which, however, could be backed by the preceding labial.

**Refs:** W. 278; M. 458; E. 72

### 2. #ndumia to bite

Ph	Group	Language	Witness	Gloss	Source
NS	Kumanu	Kumanu	'ntná	to bite	Bender (2001)
NS	ES	Gaam	ñom	to eat, chew	BA80
NS	ES	Temein	lam	to eat	RCS
NS	CS	Sara	dùùn	mordre	Boyeldieu (2000)
NS	Saharan	Kanuri	nànd-	to bite	Cyffer (1994)
NS	Songhay	Kaado	nàmà	to bite	DC
NS	Kadu	Tulishi	a'dõnâ	to bite	RCS
NC	PWS		#lum-	beißen	W.253
NC	Mande	Bambara	dumu-ni	eating	Bailleul (1996)
NC	Atlantic	Bijogo	-num	mordre	Segerer (n.d.)
NC	Kru	Nyabwa	nûmû	mordre	ALKCI
NC	Gur	Degha	dómá	mordre	ALGCI
NC	Ubangian	Mba	nómá-	mordre	Moñino (1988)
NC	Kwa	Lelemi	dû	to bite	Heine (1968)
NC	WBC	Ikwere: Ndele	ré <sup>+</sup> -nû	bite (n.)	Williamson (p.c.)
NC	WBC	Yoruba	rû	to bite	Abraham (1958)
NC	EBC	Efik	dum	to bite	Co91
NC	Bantu	CB	dûm-	to bite	G. 70:696

**Commentary:** The Niger-Congo roots for 'bite' are fairly consistent and distinct from the 'eat' series (#ri). In Nilo-Saharan the widespread 'eat' form, #ña, is thought to be connected with Niger-Congo 'meat' (e.g. Bender 1996a) and may well be intertwined with 'bite'. The persistence of initial d- from CS to Bantu makes it likely that forms with nd- initials go back to at least PCS and perhaps further. Williamson (p.c.) provides evidence for r/l/n/d correspondences within Igboid, so it is credible that these are reflected much further afield.

**Ref:** E. 387, 518; W. 253; M. 110

1 #*bóra* breast, milk

Ph	Group	Language	Witness	Gloss	Source
NS	Fur	Fur	<i>bóra</i>	milk	Jakobi (1990)
NS	ES	Sungor	<i>mbol</i>	breast	RCS
NS	CS	Mödö	<i>mbà</i>	breast	P & P
NS	Songhay	Gao	<i>fafa</i>	<i>sein</i>	Prost (1956)
NS	Kadu	Kurondi	<i>oba</i>	breast	RCS
NC	#PWS		#-bi-	<i>Brust</i>	
NC	Mande	Boko	-bi		W. 207-8
NC	Atlantic	Limba	hu-		Prost (1953)
			bili/m-a-		Segerer (n.d.)
NC	Atlantic	Diola-Fogny	-fiil	<i>sein</i>	Segerer (n.d.)
NC	Atlantic	Pepel	pile	<i>sein</i>	Segerer (n.d.)
NC	Gur	Dagaare	bir / bire	<i>sein</i>	Manessy (1975)
NC	Ubangian	Manza	bèrè	<i>sein</i>	Moñino (1988)
NC	Kwa	Kposo	è-ví	breast	Heine (1968)
NC	WBC	Nupe	ebé	breast	Banfield (1914)
NC	EBC	Toro	bene	breast	RMB
NC	Bantu	CB	-béédé	breast	Guthrie CS 71 (5/6)

**Commentary:** First discussed in Blench (1995) but later found to have a wider distribution than noted there. Perhaps not to be reconstructed to PNS but to some intermediate level of NS. There is a clear division between Nilo-Saharan (back vowel) and Niger-Congo (front vowel). Class 6 in Bantu has a nasal prefix, also attested in Atlantic and apparently conserved from Central Sudanic.

Ref: B. 254, M. II, 25, W. 207-8; E. 296

4 #*gára* buffalo

Ph	Branch	Group	Language	Witness	Source
NS	Kulin		Ik	gasar	Heine (1999)
NS	Koman		Madin	gwas	RCS
NS	Kunama	Kunama	Kunama	gàú'gà	Bender (2001)
NS	ES	Nilotic	Rek Dinka	anyaar	RCS
NS	Maba		Masalit	gurei	Edgar (1991)
NS	Saharan		Kanuri	ŋgárán	Cyffer (1994)
NC	Gur		Lamba	nyar	M
NC	WBC	Nupoid	Nupe	eya <sup>+</sup>	Banfield (1914)
NC	EBC	Plateau	Mada	gyàr	RMB
NC	EBC	Mamboloid	Kara	jar	Co
NC	Bantu	PB	#-játi		Guthrie CS 1947

**Commentary:** Evidence for this reconstruction is rather sparse compared with some other items, but the segmental similarities across a large geographic area call for consideration. The absence of the root in some higher nodes of Niger-Congo suggests the possibility of a loan into Niger-Congo from Nilo-Saharan, for example from Saharan into Adamawa and thence to Benue-Congo, although its presence in Gur is surprising.

The weakening of *g* to *ɣ* in Nilo-Saharan is presumed to be independent of this same process in BC. Also occurs in Chadic. Daflo *yàt*, although this is probably a loan.

Ref: M. 403, BCCW, I, 12; E. 559

5 #*bworo* earth, ground

Ph	Branch	Language	Witness	Gloss	Source
NS	Shabo	Shabo	boka	earth, ground	Fleming (1991)
NS	Koman	Uduk	p'én	down	Bender (1983)
NS	Berta	Fadasi	emboro	earth	Bender (1989)
NS	Fur	Fur	bòru	earth	Beaton (1968)
NS	ES	Lokoya	a-bóró	earth	Voßen (1982)
NS	ES	Me'en	bwi	ground	Will (n.d.)
NS	Maba	Aiki	bàànjin	terre	Nougayrol (1989)
NS	Maba	Masalit	abíi	earth	RCS
NS	CS	Moru	vurú	earth	RCS
NS	CS	Mödö	bérí	down	P & P
NS	CS	Sara	bòr	mud	Palayer (1992)
NS	Saharan	Daza	bi	world	Le Coeur (1950)
NS	Saharan	Zaghawa	èbir	dust	RCS
NS	Saharan	Berti	bira	mud	RCS
NS	Songhay	Zarma	laàbú	terre	BWK
NS	Kadu	Miri	butulu	earth	RCS
NC	Mande	Bisa	bela	argile blanchâtre	Prost (1953)
NC	Mande	Bambara	bògo	terre	Bailleul (1996)
NC	Atlantic	Bassari	bär	terre	Ferry (1991)
NC	Gur	Lorhon	burko	terre	ALGCI
NC	Kwa	Krobu	gbé	terre	ALKwCI
NC	EBC	Tarok	mìbin	earth, soil	L & B
NC	Bantu	CB	-bó	soil	Guthrie CS 215

**Commentary:** PNS must have had a form that allows the development of both front and back vowels. Either C<sub>1</sub> was labialised, or else labialisation resulted from the consonant itself, accounting for the different vowels in the surface forms. If so, then the original V<sub>1</sub> was a front vowel. Bender (1996a: 78) permits semantic shifts to 'swamp' and 'sharcon' which are not accepted here.

Ref: E. 55, 197

6. # *tor*: elephant

Ph	Group	Language	Witness	Gloss	Source
NS	Kufiak	Ik	oŋor	Heine (1999)	
NS	Koman	Anej	gəl	Hender (1981)	
NS	Maba	Maba	ŋòdò	Edgar (1991)	
NS	Maba	Aiki	àŋòdò	Nouguayrol (1989)	
NS	ES	Murle	aŋol	RCS	
NS	ES	Temein	lóŋòl	RCS	
NS	Tama	Tama	ŋòr	RCS	
NS	CS	Fer	ngòy	Boyeldieu (1987)	
NS	Fur	Fur	àngír	Jakobi (1990)	
NS	Songhay	Kanuri	gargardán	Cyffer (1994)	
NS	Kadu	Katcha	mɔŋɔ	RCS	
NC	PWS		#-ni-	W. 264	
NC	Atlantic	Pulaar	nyiwa	Segerer (n.d.)	
NC	Ubangian	Mba	ŋjá	Moñino (1988)	
NC	Kwa	Avatime	ó-nyi /bé-	Heine (1968)	
NC	WBC	Bini	èní	Agheyisi (1986)	
NC	EBC	Anaang	é-ni:n	Co91	
NC	EBC	Mada	ju	RMB	
NC	Bantu	CB	-ŋángá	'tusk' Guthrie CS 1388	

**Commentary:** Despite clearly being a Niger-Congo root, it is unaccountably absent from several branches. The original shape of the word must have been something like #*ŋoro* with r → N in C<sub>2</sub> position in some languages. The velar nasal in turn became a palatal and the back vowel became fronted under the influence of the palatal. It would have appeared in this form in Proto-Niger-Congo.

Ref: W. 264, M. 394, E. 556

7. # *durl*: to fall (as rain)

Ph	Group	Language	Witness	Gloss	Source
NS	Shabo	Shabo	dim	rain n.	Fleming (1991)
NS	Gumuz	Gumuz	dama	rain n.	Bender (1979)
NS	Kuliak	Ik	rúb-(éf)-on	to fall (tree)	Heine (1999)
NS	Koman	Gule	rus	rain n.	Bender (1983)
NS	Kunama	Kunama	dùd'dà	to fall	Bender (2001)
NS	Berta	Undu	ro	rain n.	Bender (1989)
NS	ES	Nera	lóo	to rain	RCS
NS	ES	Temein	lèè	to rain	RCS
NS	ES	Bari	kudú	to rain	Voßen (1982)
NS	CS	Mödö	ùlörù	to fall (trees)	P & P
NS	CS	Gula Mere	è'dì	to rain	Boyeldieu (2000)
NS	Maba	Masalit	teer	falling	Edgar (1991)
NS	Saharan	Kanuri	dùr	to fall as rain	Cyffer (1994)
NS	Kadu	Krongo	aadí	to rain	RCS
NC	Mande	Dan	dà	pluie	ALMCI
NC	Atlantic	Joola Kujamutay	-lub	to rain	Seggerer (n.d.)

Ph	Group	Language	Witness	Gloss	Source
NC	Ubangian	Bofi	to	number	Moñino (1988)
NC	Gur	Proto Guruma	*dù	rain (n.)	Manes (1969)
NC	Kwa	Egri	edù	rain (n.)	AIKwCI
NC	WIC	Yoruba	èdò	to fall (rain)	A58
NC	WIC	Ukuwani	zùé	to rain	Williamson (p.c.)
NC	WIC	Nupe	dù	to rain	Banfield (1914)
NC	EBC	Tarok	ru	to fall	L & B
NC	EBC	PCJ	*tù	rain (n.)	Shimizu (1980)
NC	EBC	Ibibio	dùs	to fall	Co91
NC	EBC	Daka	dùrif	rain (n.)	Boyd (1994)
NC	Bantu	CB	-dùmbí	continuous rain	Guthrie CS 744

**Commentary:** One of the most widespread and best attested roots in Niger-Saharan.

Ref: G. 117

8. # *turu*: five

Ph	Family	Language	Witness	Source
NS	Shabo	Shabo	tuul	? < Surmic Fleming (1991)
NS	Kuliak	Ik	tud-on	Heine (1999)
NS	ES	Tama	tòr	six (?C) RCS
NS	CS	Ma'di	tòú	Blackings (2000)
NS	Maba	Masalit	tóor	Edgar (1991)
NS	Kadu	Mudo	túmmu	Schadeberg (1994)
NC	Mande	Yauri	solu	Prost (1953)
NC	Atlantic	Temne	tamat	Seggerer (n.d.)
NC	Ijoid	Izon	ssónrón	Williamson (p.c.)
NC	Gur	Lorhon	to'	ALGCI
NC	Kwa	Avatime	ò-tú	Heine (1968)
NC	WBC	Nupe	gutsú	Banfield (1914)
NC	EBC	Idun	etón	BCCW
NC	EBC	Tarok	ùtukún	L & B
NC	Bantoid	Meta'	tán	BCCW
NC	Bantu	CB	-táanò	Guthrie CS 1662

**Commentary:** Long recognised as a Niger-Congo root, it is also widespread in Nilo-Saharan. Williamson (2000: 59) discusses the Niger-Congo evidence for this root.

Ref: M. 562

9. #pell to know					
Ph	Family	Language	Witness	Gloss	Source
NS	Kuliak	Ik	Hye &	Heine (1999)	
NS	ES	Gumuz	jel	BA80	
NS	ES	Liguri	yox	Thelwall (1981)	
NS	ES	Sungor	uyel	RCS	
NS	ES	Lopit	hi-yén	Voßen (1982)	
NS	CS	Ma'di	ní	Blackings (2000)	
NS	Saharan	Kanuri	nɔŋ-	Cyffer (1994)	
NC	Kordofanian	Orig	-gini	S&E	
NC	Kordofanian	Koalib	iliŋidhi	RCS	
NC	PWS		ni-, nia- + N	W.266	
NC	Atlantic	Biafada	yan	Segerer (n.d.)	
NC	Ijoid	Izon	nemi/nimi	Williamson (p.c.)	
NC	Kru	Tepo	yì	ALKCI	
NC	Gur	Palaka	yō	ALGCI	
NC	Ubangian	Gbanzili	jì	Moñino (1988)	
NC	Kwa	Adele	jí	Rongier (n.d., a)	
NC	WBC	Urhobo	nie	Elugbe (1989)	
NC	EBC	Iyongiyong	yín	St	
NC	Bantu	CB	mény	Guthrie CS 1301	

**Commentary:** The -l- in C<sub>2</sub> position in Nilo-Saharan generally becomes -n- in Niger-Congo, but it is then difficult to account for C<sub>2</sub>-m- in Ijoid and its possible metathesis in Bantu. Mukarovsky (1976-77, II:273) reconstructs #min-, but his evidence suggests this is a distinct root characteristic of Gur, but it may be that composite forms evolved somewhere within Niger-Congo. The Koalib form may well not be cognate as the **l̩ŋidhi** element appears as a detachable element in some languages of the group.

Ref: W. 266; M. 375

#### 10. #taru spread out to dry, stretch out

Ph	Group	Language	Witness	Gloss	Source
NS	Kunama	Kunama	ibatala	dry in sun	Bender (2001)
NS	CS	Mödö	ilèré	to dry	P & P
NS	CS	Gula McRe	ndütù	to dry	Boyeldieu (2000)
NS	Saharan	Kanuri	tár-	spread out	Cyffer (1994)
NS	Songhay	Songhay	téndèri	étendre	DC
NC	Atlantic	Diola	tal	spread out	Sapir (1965)
NC	Kwa	Baule	sá	to spread	ALKCI
NC	WBC	Bini	tá	to spread	Ag
NC	WBC	Yoruba	tòn	to spread	A58
NC	EBC	Izere	tárák	spread out	RMB
NC	EBC	Daka	táá	to dry	Boyd (1994)
NC	Bantu	CB	tànd-	to spread	Guthrie CS 1663

**Commentary:** The limited distribution in Nilo-Saharan suggests that this root cannot be reconstructed to Proto-Nilo-Saharan.

Ref: E. 711

#### 11. #tV(V) to pour

Ph	Group	Language	Witness	Gloss	Source
NS	Kuliak	Ik	ot̪əs	to pour off	Heine (1999)
NS	Koman	Iwampa	*t̪ar-	to pour off liquid	Bender (1983)
NS	Gumuz	Kokit	-t̪ax̪a	to pour	Bender (1979)
NS	Berlu	Undu	k'ɪθə	to pour	Bender (1989)
NS	Kunama	Kunama	't̪odà	to pour out water	Bender (2001)
NS	ES	Anywa	th̪uw	to pour	Reh (1999)
NS	CS	Mödö	öt̪i	to pour	P & P
NS	CS	Ma'di	sù pl. tū	to pour	Blackings (2000)
NS	Maba	Aiki	tend /te	verser	Nougayrol (1989)
NS	Saharan	Kanuri	tá(b)-	to pour	Cyffer (1994)
NC	Mande	Gben	li	verser	Prost (1953)
NC	Gur	Dugubère	le	verser	ALGCI
NC	Kwa	Ikposso	dε	verser	Rongier (n.d., b)
NC	EBC	Horom	te	to pour	RMB

**Commentary:** There is some evidence that this word was CVCV in Nilo-Saharan but reduced to CV in Niger-Congo. C<sub>2</sub> might have been -t-, if the -d- in Kunama and the -t̪- in Undu are cognate as t > θ, t > d (intervocalic), d > r (intervocalic) are all common changes.

#### 12. #togo to pound

Ph	Group	Language	Witness	Gloss	Source
NS	Kuliak	Soo	tog	to pound	Carlin (n.d.)
NS	Kunama	Kunama	tokko-	to knock	Bender (2001)
NS	ES	Acoli	tok	to pound	RCS
NS	Saharan	Kanuri	t̪gás-	to pound lightly	Cyffer (1994)
NS	Songhay	Kaado	dúrú	piler	DC
NC	Mande	Bobo	tugo	piler	Prost (1953)
NC		PWN	*-tud-		M
NC	Atlantic	Temne	to	piler	Segerer (n.d.)
NC	Ijoid	Nembe	temí	to pound	?C Williamson (p.c.)
NC	Gur	Moore	to	piler	Manessy (1975)
NC	Kwa	Ewe	tó	piler	Rongier (1995)
NC	EBC	Pe	utunj	mortar	RMB
NC	EBC	cLela	doró	mortar	RMB
NC	WBC	Plgboid	*-tówó	to pound	Williamson (p.c.)
NC	Bantu	PB	tóang	to pound	Tervuren (n.d.)

**Commentary:** There could be an ideophonic element in this word. The velar in C<sub>2</sub> position in Nilo-Saharan was retained as far as Mande. Some other branches of Niger-Congo retain paired back vowels and the velar nasal in EBC' may be a retention from the Nilo-Saharan root. Poorly attested in the sources. Westermann reconstructed this root to

PWS as **\*tu**, **\*tu** with the primary meaning 'to push'. Skinner (1996: 264) notes Southern Cushitic \***\*tu'** 'to pound grain' suggesting a possible pan-African root.

**Ref:** W. 290; M. 521; Sk. 264; E. 818

### 3. Conclusions

As more data become available, the case for Niger-Saharan is strengthened. However, the present lack of consensus on the internal structure of Nilo-Saharan makes it impossible to be sure that the roots which appear to be handed down to Niger-Congo are really PNS or simply a reflection of some internal node. Similarly, there have evidently been significant loans of fundamental vocabulary into Niger-Congo from Nilo-Saharan ('elephant' may be one of these), and these therefore do not constitute evidence for a macrophyllum. Only further work on Nilo-Saharan will clarify these issues.

### Acronyms and Terminology

Acronym	Expansion or source	Reference or language
A58	Abraham (1958)	
ALGCI	Mensah & Tchagbale (1983)	Yoruba
ALKCI	Hérault (1983)	Gur
ALKrCI	Marchese (1983)	Kwa
ALMCI	Halaoui, Tera and Trabi (1983)	Kru
B	Bender (1996a)	Mande
BA80	Bender and Ayre (1980)	Nilo-Saharan
BC	Benue-Congo	Gaam
BCCW	Williamson & Shimizu (1968) & Williamson (1973)	Benue-Congo
BWK	Bernard & White-Kaba (1994)	Zarma
C	Consonant	
CB	Common Bantu	
Co	Connell (n.d.)	Guthrie (1967-71)
Co91	Connell (1991)	Mambiloid
CS	Central Sudanic	Lower Cross
DC	Ducroz & Charles (1978)	Songhay Kaado
E	Ehret (2001)	Nilo-Saharan
EBC	East Benue-Congo	
ES	Eastern Sudanic	
G	Greenberg (1963)	African languages
L & B	Longtau & Blench (in press)	Tarok
M	Mukarovsky (1976/7)	Proto-Western Nigristic
N	Nasal	
NC	Niger-Congo	
NS	Nilotic	
P & P	Persson & Persson (1991)	

### Expansion or source

Proto-Bantu  
Phylum  
Proto-L. jo.  
Proto-Nilotic  
Proto-Niger-Congo  
Proto-Nilo-Saharan  
Proto-Western Nigristic  
Proto-West Sudanic  
Roland Stevenson ms.

### Reference or language

Williamson, in prep.

Mukarovsky, 1976/77  
Westermann, 1927  
Nilo-Saharan, Kordofanian

Orig  
Southern Cushitic  
Upper Cross  
Western Sudanic

Author's fieldwork  
Schadeberg & Elias (1979)  
Skinner 1996  
Sterk (ms.)  
Vowel  
Westermann (1927)  
First Benue-Congo

# means I am doubtful of the cognacy of a particular item. The # reconstructions are quasi-reconstructions meant to suggest the general shape of a root and subject to revision.

This paper adopts the convention for reconstructions used for Niger-Congo, distinguishing those established by regular sound-correspondences from those derived by quick inspection of cognates. By this criterion, most major reconstructions are 'quasi-reconstructions' (inevitably). The effect of this is to translate the starred forms of various writers to hache '#'.

- \* Reconstruction based on complete analysis of sound-change
- # 'Quasi-reconstruction' based on quick inspection of cognates

References to major comparative sources such as Mukarovsky (1976/77) or Ehret (2001) are the acronym for the author followed by the number of the comparative series. Thus M 547 etc.

### Acknowledgement

This paper was presented at the 8th Nilo-Saharan Conference in Hamburg, 22-25<sup>th</sup> August, 2001 and subsequently revised. I would like to thank Eithne Carlin, Didier Demolin, Nigel Favell, Lionel Bender and Robin Thelwall for unpublished data used in this paper. Kay Williamson has been through it in considerable detail, both adding Ijoid and Igboid cognates and commenting on the analyses. I have tried to respond to all her observations.

## References

- Abraham, Roy C. 1958. *Dictionary of Modern Yoruba*. London: University of London Press.
- Agheyisi, Rebecca N. 1986. *An Edo-English dictionary*. Benin City: Ethiope Publishing Corporation.
- Armstrong, Robert G. 1965. Comparative wordlists of two dialects of Yoruba with Igala. *Journal of West African Languages* 2,2: 51-78.
- Bailleul, Charles 1996. *Dictionnaire Bambara-Français*. Bamako: Donniya.
- Banfield, A.W. 1914. *Dictionary of the Nupe Language*. Shonga: The Niger Press.
- Beaton, Anthony C. 1968. *A Grammar of the Fur Language*. (Linguistic Monograph Series, 1.) Khartoum: Khartoum University.
- Bender, Marvin L. 1979. Gumuz: a sketch of grammar and lexicon. *Afrika und Übersee* 62: 38-69.
- \_\_\_\_\_. 1983. Proto-Koman phonology and lexicon. *Afrika und Übersee* 66: 259-297.
- \_\_\_\_\_. 1989. Berta lexicon. In *Topics in Nilo-Saharan Linguistics*, ed. by M. Lionel Bender. (Nilo-Saharan, 3.) Hamburg: Helmut Buske, 271-304.
- \_\_\_\_\_. 1996a. *The Nilo-Saharan Languages: A Comparative Essay*. München: Lincom Europa.
- \_\_\_\_\_. 1996b. Nilo-Saharan '95. *Afrikanische Arbeitspapiere* 45: 1-25.
- \_\_\_\_\_. 2001. English-Kunama lexicon. *Afrikanische Arbeitspapiere* 65: 201-253.
- \_\_\_\_\_. and Malik A. Ayre 1980. *Preliminary Gaam-English-Gaam dictionary*. Available from the author.
- Bernard, Yves and Mary White-Kaba 1994. *Dictionnaire Zarma-Français*. Paris: ACCT.
- Blackings, Mairi J. 2000. *Ma'di English – English Ma'di Dictionary*. München: Lincom Europa.
- Blench, Roger M. 1995. Is Niger-Congo simply a branch of Nilo-Saharan? In *Proceedings of the Fifth Nilo-Saharan Linguistics Colloquium, Nice, 1992*, ed. Robert Nicolaï and Franz Rottland. (Nilo-Saharan, 10.) Köln: Rüdiger Köppe, 68-118.
- \_\_\_\_\_. 2000[2002]. The classification of Nilo-Saharan. *Afrika und Übersee* 83: 293-307.
- \_\_\_\_\_. in press. Further evidence for Niger-Saharan and the problem of pan-African roots. In *Proceedings of the 7th Nilo-Saharan Conference in Vienna, 2-6<sup>th</sup> September, 1998*, ed. by Norbert Cyffer. Köln: Rüdiger Köppe.
- Boyd, Raymond 1994. *Historical Perspectives on Chamba Daka*. (Westafrikanische Studien, 6.) Köln: Rüdiger Köppe.
- \_\_\_\_\_. 1997. Congo-Saharan revisited. *Frankfurter Afrikanistische Blätter* 8: 15-48.
- Boyeldieu, Pascale 1987. *Les Langues Fer (Kara) et Yulu du Nord Centrafricain*. Paris: Geuther.
- \_\_\_\_\_. 2000. *Identité tonale et filiation des langues sara-bongo-baguirmiennes (Afrique-Centrale)*. (SUGIA, Beih. 10.) Köln: Rüdiger Köppe.
- Carlén, Elinne. n.d. *Soo dictionary*. Electronic ms.
- Childs, G. Tucker 2000. *A Dictionary of the Kisi Language*. (Westafrikanische Studien, 22.) Köln: Rüdiger Köppe.
- Connell, Bruce A. 1991. *Phonetic aspects of the Lower Cross languages and their implications for sound change*. Ph.D. University of Edinburgh.
- \_\_\_\_\_. n.d. *Comparative Mambiloid wordlists*. Electronic ms.
- Cyffer, Norbert 1994. *English-Kanuri Dictionary*. (Westafrikanische Studien, 3.) Köln: Rüdiger Köppe.
- Ducroz, Jean-Marie and Marie-Claire Charles 1978. *Lexique Sogey (Songay) Français*. Paris: Harmattan.
- Edgar, John T. 1991. *Maba-Group Lexicon*. (Sprache und Oralität in Afrika, 13.) Berlin: Dietrich Reimer.
- Ehret, Christopher 2001. *A Historical-Comparative Reconstruction of Nilo-Saharan*. (SUGIA, Beih. 12.) Köln: Rüdiger Köppe.
- Elders, Stefan 2000. *Grammaire Mundang*. Leiden: CNWS.
- Elugbe, Ben O. 1989. *Comparative Edoid: Phonology and Lexicon*. (Delta Series, 6.) Port Harcourt: University of Port Harcourt Press.
- Ferry, Marie-Paul 1991. *Thesaurus Tenda*. Paris: Peeters.
- Fleming, Harold C. 1991. Shabo: presentation of data and preliminary classification. In *Proceedings of the Fourth Nilo-Saharan Conference, Bayreuth, 1989*, ed. by M. Lionel Bender. (Nilo-Saharan, 7.) Hamburg: Helmut Buske, 389-402.
- Greenberg, Joseph H. 1963. *The Languages of Africa*. The Hague: Mouton, publ. for Indiana University.
- Høegren, Edgar A. 1972. Kongo-Saharan. *Journal of African Languages* 11,1: 69-89.
- Hulse, Malcolm 1967/71. *Comparative Bantu*. 4 vols. Tarnham: Gregg International Publishers.
- Ialoul, Nazum, Kalilou Tetra, and Monique Trahi 1983. *Atlas des langages mandé-sud de Côte d'Ivoire*. Abidjan: ACCT and ILA.
- Imie, Bernd 1968. *Die Verbreitung und Gliederung der Togoresprachen*. (Kölner Arbeiten zu Afrikanistik, 1.) Berlin: Dietrich Reimer.
- \_\_\_\_\_. 1999. *Ik Dictionary*. (Nilo-Saharan, 15.) Köln: Rüdiger Köppe.
- Jault, G. 1983. *Atlas des Langues Kwa de Côte d'Ivoire*, T.2. Abidjan: ACCT and ILA.
- Kohli, Angelika 1990. *A Fur Grammar*. Phonology, Morphophonology and Morphology. (Nilo-Saharan, 5.) Hamburg: Helmut Buske.
- Langtau, Selbut and Roger M. Blench in press. *Tarok dictionary*. Electronic ms.
- L'ouer, Charles 1950. *Dictionnaire Ethnographique Teda*. Dakar: IFAN.
- Lehouy, Gabriel 1969. *Les langues Gurunsi*. Paris: SELAF.
- \_\_\_\_\_. 1975. *Les langues Oti-Volta*. Paris: SELAF.
- Lehouy, Lynell 1983. *Atlas Linguistique Kru*. Abidjan: ACCT and ILA.
- Lehouy, E.N.A. and Z. Tchagbale 1983. *Atlas des langues Gur de Côte d'Ivoire*. Abidjan: ACCT and ILA.
- Likola, Pertti 1998. Random coincidence in mass comparison: preliminary analysis of the Nilo-Saharan lexicon. *Nordic Journal of African Studies* 7,1: 63-92.
- \_\_\_\_\_. 1999. Nilo-Saharan revisited: some observations concerning the best etymologies. *Nordic Journal of African Studies* 8,2: 108-138.
- Linno, Yves (ed.) 1988. *Lexique comparatif des langues oubangiennes*. Paris: Geuthner.
- Markovsky, Hans G. 1976-1977. *A Study of Western Nigritic*. 2 vols. Wien: Afro-Pub.
- Mugayrol, Pierre 1989. *La Langue des Aïki*. Paris: Geuthner.
- Muyler, Pierre 1992. *Dictionnaire Sar*. Paris: Geuthner.
- Naason, Andrew M. and Janet R. Persson 1991. *Mödö-English Dictionary with Grammar*. Nairobi: SIL.
- Ou, I.P.A. 1953. *Lex langues Mandé-Sud du groupe Mana-Busa*. Dakar: IFAN.
- \_\_\_\_\_. 1956. *La langue Sonay et ses dialectes*. Dakar: IFAN.
- Otto, Mechthild 1999. *Anywa-English and English-Anywa Dictionary*. (Nilo-Saharan, 14.) Köln: Rüdiger Köppe.
- Nguyen, Jacques 1995. *Dictionnaire français-éwé*. Paris: ACCT-Karthala.
- \_\_\_\_\_. n.d., a. *Dictionnaire français-adele*. Electronic ms.
- \_\_\_\_\_. n.d., b. *Dictionnaire français-ikpssɔ*. Electronic ms.
- Otto, Otto (ed.) n.d. *Gonja-English Dictionary and Spelling Book*. Legon: Institute of African Studies.
- Ott, J. David 1965. *A Grammar of Diola-Fogny*. Cambridge: Cambridge University Press.
- Heideberg, Thilo C. 1981. *A Survey of Kordofanian. Vol. 1: The Heiban Group*. (SUGIA, Beih. 1.) Hamburg: Helmut Buske.
- \_\_\_\_\_. 1994. Comparative Kadu wordlists. *Afrikanische Arbeitspapiere* 40: 11-48.
- \_\_\_\_\_. and Ellan, Philip 1979. *A Description of the Orig Language*. Tervuren: MRAC.
- Perrier, Chulliaume n.d. *Liste comparative de langues Atlantiques*. Electronic ms.
- Shizuka, Kiyoshi 1980. *Comparative Jukunoid*. (3 vols.) (Veröffentlichungen der Institute für Afrikanistik und Ägyptologie der Universität Wien.) Wien: Afro-Pub.
- Sinner, Neil A. 1996. *Hausa Comparative Dictionary*. (Westafrikanische Studien, 11.) Köln: Rüdiger Köppe.
- Sirk, Jan P. n.n. *Upper Cross wordlists*. Electronic ms.
- Sivonon, Roland C. mss. *Nilo-Saharan wordlists*. hand-written ms.
- Sorra, Aubesse n.d. *Shabo wordlist*. Typescript.
- Swallow, Robin 1981. *Subgrouping and reconstruction of Daju*. In: *Nilo-Saharan*, ed. by Thilo C. Nehindeberg and M. Lionel Bender. Holland: Foris Publications, 167-184.
- Tholen, Rainer 1982. *The Eastern Nilotes: Linguistic and Historical Reconstructions*. (Kölner Beiträge zur Afrikanistik, 9.) Berlin: Dietrich Reimer.
- Westermann, Diedrich 1911. *Die Sudansprachen*. Hamburg: Friederichsen.
- \_\_\_\_\_. 1927. *Die Westlichen Sudansprachen und ihre Beziehungen zum Bantu*. Berlin: De Gruyter.
- Will, Hans Georg, n.d. *Mc'en dictionary*. ms.

- Williamson, Kay 1973. *Benue-Congo Comparative Wordlist: Vol. 2*. Ibadan: West African Linguistic Society.
- \_\_\_\_\_. 2000. Towards reconstructing Proto-Niger-Congo. In *Proceedings of the 2nd World Congress of African Linguistics, Leipzig 1997*, ed. by H. Ekkehard Wolff and Orin D. Gensler. Köln: Rüdiger Köppe, 49-70.
- \_\_\_\_\_. and Roger M. Blench 2000. Niger-Congo. In *African Languages: An Introduction*, ed. by Bernd Heine and Derek Nurse. Cambridge: Cambridge University Press, 11-42.
- \_\_\_\_\_. and Kiyoshi Shimizu 1968. *Benue-Congo Comparative Wordlist: Vol. 1*. Ibadan: West African Linguistic Society.

**Roger Blench**

Cambridge

E-mail: [R.Blench@odi.org.uk](mailto:R.Blench@odi.org.uk)